MAR 2 6 2007

AMENDMENTS TO THE CLAIMS

Following is a listing of all claims in the present application, which listing supersedes all previously presented claims:

Listing of Claims:

1.   (Original) A method for recognizing a pattern of an alignment mark on a wafer, the method comprising:

positioning the wafer on an adjustable wafer stage in ~~an alignment~~ a measurement apparatus;

capturing images of a key alignment mark by magnifying an alignment mark region of the wafer;

deleting image data from a region where the alignment pattern does not exist between the captured images; and

extracting an alignment mark pattern by a pattern recognition of the remaining image data after the deletion of the image data.

2.   (Original) The method for recognizing a pattern of an alignment mark on a wafer as claimed in claim 1, wherein the key alignment mark is magnified by at least about four magnifications.

3.   (Original) The method for recognizing a pattern of an alignment mark on a wafer as claimed in claim 1, wherein a related pattern is recognized during a set-up of the measurement apparatus for measuring parameters relative to a particle on the wafer, a thickness of the pattern, a critical dimension of the pattern or a depth of the pattern.

4.   (Currently Amended) A method for recognizing a pattern of an alignment mark

on a wafer, the method comprising:

    providing the wafer into an alignment a measurement apparatus;

    identifying a key alignment mark in an alignment mark region of the wafer;

    capturing an image by magnifying only the identified key alignment mark;

    extracting an alignment mark pattern by a pattern recognition of the captured image; and

    establishing the extracted alignment mark pattern as a reference mark.

5.   (New) The method for recognizing a pattern of an alignment mark on a wafer as

claimed in claim 1, wherein the images are captured by the measurement apparatus that includes

a controlling member.

6.   (New) The method for recognizing a pattern of an alignment mark on a wafer as

claimed in claim 5, wherein the controlling member recognizes converted image data via a

pattern recognition algorithm.

7.   (New) The method for recognizing a pattern of an alignment mark on a wafer as

claimed in claim 5, wherein the controlling member controls a driving member to adjust

alignment of the wafer in accordance with the pattern recognition.

8.   (New) The method for recognizing a pattern of an alignment mark on a wafer as

claimed in claim 1, wherein the images are captured with a CCD sensor.

9.   (New) The method for recognizing a pattern of an alignment mark on a wafer as claimed in claim 8, wherein the CCD sensor transforms incident light with a photoelectric conversion method into two-dimensional gray level image data.

10.   (New) The method for recognizing a pattern of an alignment mark on a wafer as claimed in claim 1, wherein a box region includes the key alignment mark.

11.   (New) The method for recognizing a pattern of an alignment mark on a wafer as claimed in claim 1, wherein the key alignment mark has a window frame shape.

12.   (New) The method for recognizing a pattern of an alignment mark on a wafer as claimed in claim 1, wherein the key alignment mark has a square shape with a cross inside.

13.   (New) The method for recognizing a pattern of an alignment mark on a wafer as claimed in claim 4, wherein the image is captured by the measurement apparatus that includes a controlling member.

14.   (New) The method for recognizing a pattern of an alignment mark on a wafer as claimed in claim 13, wherein the controlling member recognizes converted image data via a pattern recognition algorithm.

15.   (New) The method for recognizing a pattern of an alignment mark on a wafer as claimed in claim 13, wherein the controlling member controls a driving member to adjust alignment of the wafer in accordance with the pattern recognition.

16.   (New) The method for recognizing a pattern of an alignment mark on a wafer as claimed in claim 4, wherein the image is captured with a CCD sensor.

17.   (New) The method for recognizing a pattern of an alignment mark on a wafer as claimed in claim 16, wherein the CCD sensor transforms incident light with a photoelectric conversion method into two-dimensional gray level image data.

18.   (New) The method for recognizing a pattern of an alignment mark on a wafer as claimed in claim 4, wherein a box region includes the key alignment mark.

19.   (New) The method for recognizing a pattern of an alignment mark on a wafer as claimed in claim 4, wherein the key alignment mark has a window frame shape.

20.   (New) The method for recognizing a pattern of an alignment mark on a wafer as claimed in claim 4, wherein the key alignment mark has a square shape with a cross inside.